UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ART UNIT	PAPER NUMBER
2162	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6, 16-21, 25, 27, 34-36, 39, 64-68* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,16-21,25,27,34-36,39 and 64-68* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-6, 16-21, 25, 27, 34-36, 39, 64-68 are pending in this application.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

MPEP 2106 IV. B.2. (b)

A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. 101. Schrader, 22 F.3d at 296, 30 USPQ2d at 1460. To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan, or (B) be limited to a practical application within the technological arts.

1-6, 16-21, 25, 27, 34-36, 39; 64-68

2.   Claims 66-68 in view of the above cited MPEP section, are not statutory because claims they merely recite computing steps without producing any concrete and useful result and/or being limited to a practical application within the technological arts. The claim directs to data structure which is non-functional descriptive material. The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they

fail to fall within a statutory category. They are, at best, functional descriptive material *per se*. Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994). Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.")

Response to Arguments

3.   Applicant's arguments filed 08/25/2006 have been fully considered but they are not persuasive.

Applicant argues, "Smith does not teach receiving a query composed of one or more fully specific terms and one or more at least partially unspecified terms. The examiner has pointed to Smith at column 5, lines 52 to 67 for such a teaching. Here, Smith merely uses the well known wild card operator. For

example, cat* would return the words cat, catch, or catastrophe. However, there

is no fully specified term in that example. As to relative order, Smith merely

teaches that order can be prescribed such that if a user wants to search a space

for object where the word "cat" precedes the word "hat" he can enter the

appropriate search query. This teaching in Smith does not anticipate the claim

language."

The examiner respectfully disagrees with the above argument. Smith

discloses "thus, if a user wants to search a search space for objects where the

word "cat" precedes the word "hat", he would enter "cat ...hat" as the search

query. If the user, however, only wants to find instances where the word "cat"

precedes the word "hat" by five or fewer words, then a new attribute must be

introduced. This new attribute is a "within" limitation, one example of the class of

items known as switches" (col. 5, lines 37-44). This query will get anything

between the word cat and hat, which is similar to the example of the indicate in

page 2 of the Remarks "Agatha Christie was born in England" not "England is

where Agatha Christie was born." In this example, the applicant contradicts his

or himself regarding to the relative order of the matching term. The claim

indicates the relative order of the terms are not required; however, the example

in page two of the Remarks shows "Agatha Christie was born in England" which

require matching of terms in the relative order of the query and unspecific terms.

Therefore, the query "cat..hat" is found including the unspecified words between

cat and hat as same as the claim require relative order of the query term and the

unspecified terms. In order to clarify the Smith teaching, examiner include

Bellinger which also discloses the use of he wild card for example # and specific term. Such wild card have a variety of usage including matching characters to complete the word or matching the character of a term or a term (*, ?, /..) (col. 5, lines 52-67 and col. 3, lines 3-6). In addition, to the above argument the claim only request to determine the one or more matches for the query which also means there one only one requirement of matching the specific term not the unspecific term. Then, the relative order of the term is not required which also taught by Smith cat* or ...cat or cat... (col. 5, lines 5-65).

All dependant claims will be rejected as to their based claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claim 1-6, 16, 21, 25, 27, 34-36, 39 and 64-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US. Patent No. 6,081,804) in view of Bellinger et al. (US. Patent No 5,870,725).

Regarding on claims 1 and 66, Smith teaches a method of fulfilling an information need, comprising the steps of:

receiving a query comprised of one or more fully specified terms (word,

cat...hat) and one or more at least partially unspecified terms (*, ?, /..) (col. 5,

lines 52-67 and col. 3, lines 3-6); and

determining one or more matches for the query, wherein a criterion for

determining one of said matches specifies that a relative order of at lest one term

of said query need not be preserved with respect to at least one other term

included in the query (if the user, wants to search a search space for objects

where the word "cat" preceded the word hat where the result be always be first

cat retrieval word and hat) (col. 3, lines 15-23 and col. 5, lines 7-51).

Smith does not explicitly discloses one or more at least partially

unspecified terms; however, Smith discloses of variety of wildcards including

space parameters such as cat...hat (*, ?, /..) (col. 5, lines 52-67 and col. 3, lines

3-6). On the other hand, Bellinger discloses one or more at least partially

unspecified terms (as to corresponding to the use of wildcards and customer

selection of special characters also allows this additional data field to contain

multiple data element; such as Payee name using the special character # to

begin this data and the special character $ to begin the invoice number. A

wildcard search suing # plus the specific name would only retrieve record with #

and specific name..." (col. 28 lines 64-67 to col. 29 lines 1-5). This suggestion of

the one word and a specific symbol which specify the record for retrieval.

Therefore, it would have been obvious to one ordinary skill in the art at the time

of the invention was made to modify Smith's system to include using of wild card

as taught by Bellinger in order to give the additional tools to allocate additional information.

Regarding on claim 2, Smith teaches identifying documents in an index that contain the one or more at least partially unspecified terms, the index including preaanlyzed text terms appearing within a plurality of document (col. 6, lines 1-49).

Regarding on claim 3, Smith teaches converting the query into a finite state machine; and matching the finite state machine against the identified contexts (col. 6, lines 1-49).

Regarding on claim 4, Smith teaches the finite state machine is a finite state transducer (col. 6, lines 1-49).

Regarding on claim 5, Smith teaches the finite state machine allows for the appearance of fully specified and at least partially unspecified terms in any order in a potential matching context (query cat result catch) (col. 6, lines 1-49).

Regarding on claim 6, Smith teaches the finite state machine allows for one or more intervening words between the fully specified and at least partially unspecified terms in a potential matching context (query cat...catch, and resulting with anything between cat and hat) (col. 6, lines 1-49).

Regarding on claim 16, Smith teaches the contexts are stored as finite state machines (col. 6, lines 1-49).

Regarding on claim 21, Smith teaches the score reflects the number of times an instance of the match is located among the plurality of documents (col. 2, lines 7-19).

Regarding on claim 25, Smith teaches ranking the documents that contain a match, and wherein the second outputting step comprises outputting the document identifiers or locations of the documents that contain a match in an order based on the ranking weight) (col. 2, lines 7-19).

Regarding on claim 27, Smith teaches said one or more partially unspecified terms includes a syntactic or a morphological restriction (lower case or upper case) (col. 6, lines 1-49).

Regarding on claim 34, Smith teaches the index comprises locations of terms within documents (the object must be found in the first page) (col. 6, lines 1-49).

Regarding on claim 35, Smith teaches determining the location of a term in the query within a document using the index; and locating a match for the query based on the location of the term within the document (col. 3, lines 7-12).

Regarding on claim 36, Smith teaches ranking a plurality of the located matches or portions thereof (weight) (col. 2, lines 7-19).

Regarding on claim 39, Smith teaches the ranking is based on one or more features selected from the list consisting of the location of a match within a document, a weight assigned to a document that contains a match, the age of a document that contains a match, the source of a document that contains a match, and a format feature of a match within a document (col. 2, lines 7-19).

Regarding on claims 64 and 67, Smith teaches the query includes a delimiter indicating a first portion of said query for which a relative order is preserved for one or more terms included in said portion, said relative order

being in accordance with a physical position of each term in said first portion with

respect to any other terms in said first portion (col. 6, lines 1-49).

Regarding on claims 65 and 68, Smith teaches one of said at least partial

unspecified terms includes a predefined character sequence representing a

matching restriction that defines at least one of: a syntactical criteria, a

morphological criteria, and a criteria defined in accordance with a determination

by a computer program, and said one or more matches for the query are

determined in accordance with said matching restriction (col. 6, lines 1-49).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the
> prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not
> be negatived by the manner in which the invention was made.

4.   Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Smith (US. Patent No. 6,081,804) in view of Bellinger et al. (US. Patent

No 5,870,725) and further in view of Lee et al. (US. Pub. No. 2001/0044720

A1).

Regarding on claim 17, Smith and Bellinger do not teach the documents

are accessible over the Internet. However, Lee teaches documents are

accessible over the Internet (paragraph 0005). Therefore, it would have been

obvious to one ordinary skill in the art at the time of the invention was made to

modify Smith and Bellinger systems to include documents are accessible over

the Internet by Lee in order to retrieve documents from the distance.

Regarding on claim 18, Smith and Bellinger do not teach the documents

comprise World Wide Web pages. However, Lee teaches teach the documents

comprise World Wide Web pages (paragraph 0005). Therefore, it would have

been obvious to one ordinary skill in the art at the time of the invention was made

to modify Smith and Bellinger systems to include documents comprise World

Wide Web pages by Lee in order to retrieve documents from the distance.

5.   Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Smith (US. Patent No. 6,081,804) in view of Bellinger et al. (US. Patent No

5,870,725) and further in view of Lee et al. (US. Pub. No. 2001/0044720 A1).

Regarding on claim 20, Smith and Bellinger do not teach assigning a

score to a match. However, Hobbs discloses assigning a score to a match (as to

underpush, computers sift through large volume of information, filtering, retrieving

and then ranking in order of importance articles of current interest.." (col. 4, lines

38-40). This suggests the concept of scoring the document depend on their

match. Therefore, it would have been obvious to one ordinary skill in the art at

the time of the invention was made to modify the teaching of Smith and Bellinger

to include ranking the importance in order of importance articles as taught by

Hobs in order to display to the user in according of their relevancy.

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is at 571-272-4041 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at 571-272-4107.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

> Commissioner of Patents and Trademarks
>
> Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

> (703) 872-9306 [Official Communication]

BQ. To   *BQ*
November 7th, 2006

JOHN BREENE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100